



## Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact [support@jstor.org](mailto:support@jstor.org).

Publications received at Editor's Office,  
April 7-12.

- CASPAR's Directory of the American Book, News and Stationery Trade. 2 vols. Milwaukee, Wis. C. N. Caspar. 1494 p. 8°. \$12.
- EIMER, G. H. Organic Evolution as the Result of the Inheritance of Acquired Characters according to the Laws of Organic Growth. Tr. by J. T. Cunningham. London and New York, Macmillan. 435 p. 8°. \$3.25.
- FITCH, J. G. Notes on American Schools and Training Colleges. London and New York, Macmillan. 183 p. 16°. 60 cents.
- KIMBALL, A. L. The Physical Properties of Gases. Boston and New York, Houghton, Mifflin, & Co. 238 p. 12°. \$1.25.
- LUBBOCK, J. Scientific Lectures. 2d ed. London and New York, Macmillan. 228 p. 8°. \$2.50.
- NEW HAMPSHIRE State Board of Health, Eighth Annual Report of the, for the Eighteen Months ending Oct 31, 1889. Manchester, State. 366 p. 8°.
- SLINGO, W. and BROOKER, A. Electrical Engineering. London and New York, Longmans, Green, & Co. 631 p. 12°. \$3.50.
- ZOE. A Biological Journal. Vol. I. No. 1. March, 1890. m. San Francisco. Zoe Publ. Co. 32 p. 8°. \$2 per year.

## Longmans, Green & Co.'s NEW BOOKS.

### ELECTRICAL ENGINEERING.

FOR ELECTRIC LIGHT ARTISANS AND STUDENTS.

By W. SLINGO and A. BROOKER, of the Telegraphists' School of Science, London.

Cr. 8vo, Cloth, with 307 Illustrations, pp. viii.-631. \$3.50.

"This book is designed to embrace the requirements not only of those actually employed in the electric lighting industry, but also of those who, while having little or no electrical knowledge, have under their supervision various kinds of electrical machinery. The work should therefore prove of service to such men as marine and railway engineers, naval officers, and managers of mines and factories."

### THE ELEMENTS OF LABORATORY WORK.

A Course of Natural Science.

By A. G. EARL, M.A., F.C.S., Science Master at Tunbridge School.

With 57 Diagrams and Numerous Exercises and Questions. Pp. xii.-179. Crown 8vo, \$1.40 (net).

### A NATURALIST AMONG THE HEAD-HUNTERS.

By C. M. WOODFORD, F.R.G.S., etc.

Being an account of Three Visits to the Solomon Islands in the Years 1886, 1887, and 1888.

With 16 full-page Illustrations and 3 Maps. Crown 8vo \$2.75.

"Well worth reading, inasmuch as it gives us much to be found nowhere else, and its value is greatly increased by the various engravings it contains, reproductions of photographs taken by the author."—*London Literary World*.

### TRAVELS IN THE ATLAS AND SOUTHERN MOROCCO:

A Narrative of Exploration. By JOSEPH THOMSON, F.R.G.S., Author of "Through Masai-Land."

With 68 Illustrations of Life and Scenery in Morocco, together with 6 Maps. Crown 8vo, cloth, 504 pp., \$3.00.

"To recommend it is a duty as well as a pleasure."—*N. Y. Times*.

### THE SKIPPER IN ARCTIC SEAS.

By W. J. CLUTTERBUCK, one of the Authors of "Three in Norway," "B. C. 1887," etc.

With Map and 39 Illustrations (19 Full-page). Crown 8vo, 277 pages, \$2.25.

"It departs from the regular style of books on travel and is full of wit; and the author describes the ludicrous side of everything he sees. Its description of everything pertaining to this little-known region is unique, and the interest of the reader never flags from beginning to end."—*Portland Advertiser*.

For sale by all booksellers. Sent on receipt of price by the publishers.

**LONGMANS, GREEN & CO.,**  
15 East Sixteenth Street, New York.

SECOND EDITION.

### NATURALISTIC PHOTOGRAPHY FOR STUDENTS OF THE ART.

313 pages 8vo., cloth, \$2.00, postage prepaid  
"This book contains a greater amount of information on the artistic elements to be considered in photography than any that we know of."—*Scientific American*. Descriptive circulars on application to E. & F. N. SPON, 12 Cortlandt St., New York.

## The Riverside Science Series.

A series of books setting forth, with thorough accuracy but in popular style, the accomplished facts of science.

Vol. I. A CENTURY OF ELECTRICITY.

By T. C. MENDENHALL, Superintendent of the United States Coast Survey. New Edition, with an additional Chapter and a new Preface. Illustrated. 16mo, \$1.25.

Vol. II. THE PHYSICAL PROPERTIES OF GASES.

By A. L. KIMBALL, of Johns Hopkins University. 16mo, \$1.25.

\*\*For sale by all Booksellers. Sent by mail, post-paid, on receipt of price by the Publishers.

### HOUGHTON, MIFFLIN & CO., Boston.

11 EAST SEVENTEENTH STREET, NEW YORK.

**HEAVEN AND HELL.** By EMANUEL SWEDENBORG. 416 pages, paper cover. Mailed pre-paid for 14 Cents in stamps by the American Swedenborg Printing and Publishing Society, 20 Cooper Union, N. Y. City.

### BOOKS

50,000 vols. of ancient and modern, rare and scarce books offered for sale. Send for books tried to obtain elsewhere without success. American, British, German and French Books. Catalogues mailed free to Bookbuyers.

C. N. CASPAR, Book Emporium, 437 E. W. St., Milwaukee.

**BOOKS: How to Sell them.** Send a list, stating condition, edition, etc., to Science Book Agency, 47 Lafayette Place, New York.

## SCRIBNER & WELFORD'S NEW BOOKS.

### The Contemporary Science Series.

Edited by HAVELOCK ELLIS. Most of the volumes will be illustrated, containing between 300 and 400 pp. Others to follow at short intervals. Crown 8vo, cloth, \$1.25 per vol.

"THE CONTEMPORARY SCIENCE SERIES" will bring within general reach the best that is known and thought in all departments of modern scientific research. All the questions of modern life—the various social and politico-economical problems of to-day, the most recent researches in the knowledge of man, the past and present experiences of the race, and the nature of its environment—will be frankly investigated and clearly presented.

NOW READY:

#### The Evolution of Sex.

By Prof. PATRICK GEDDES and J. ARTHUR THOMSON.

With 104 Illustrations and 322 pp.

"A work which, for range and grasp, mastery of material, originality and incisiveness of style and treatment, is not readily to be matched in the long list of modern books designed more or less to popularize science."—*Scottish Leader*.

#### Physiognomy and Expression.

By P. MANTEGAZZA. Illustrated.

#### The Village Community in Britain

By G. L. GOMME. Numerous Illustrations.

The following Writers, among others, are preparing Volumes for this Series: Prof. E. D. Cope, Prof. G. F. Fitzgerald, Prof. J. Geikie, G. L. Gomme, E. C. K. Gonner, Prof. J. Jastrow (Wisconsin), E. Sidney Hartland, Prof. C. H. Herford, J. Bland Sutton, Dr. C. Mercier, Sidney Webb, Dr. Sims Woodhead, Dr. C. M. Woodward (St. Louis, Mo.), etc.

\*\*The above books sent upon receipt of advertised price.

**SCRIBNER & WELFORD, 743-745 Broadway, N. Y.**

## Macmillan & Co.'s New Books.

PUBLISHED THIS DAY:

### ORGANIC EVOLUTION

AS THE RESULT OF THE

### Inheritance of Acquired Characters

ACCORDING TO THE

### Laws of Organic Growth.

By DR. G. H. THEODOR EIMER. Translated by J. T. CUNNINGHAM, M.A., F.R.S.E. 8vo, \$3.25.

Now Ready, with 200 Illustrations, 8vo, \$4.50.

### THE DEVELOPMENT AND CHARACTER OF GOTHIC ARCHITECTURE.

By CHARLES HERBERT MOORE. With 200 Illustrations. 8vo, \$4.50.

"It is without question the most noteworthy work upon architecture yet written in America, as well as one of the foremost contributions to the literature of the subject which has appeared in any country. The illustrations, nearly 200 in number, are most excellent in character, and aid materially in the elucidation of the text. Mr. Moore's book is an honor to American scholarship and investigation, and deserves the widest circulation among readers who possess any interest in what he succeeds in making a most interesting subject."—*Boston Advertiser*.

### MACMILLAN & CO., Publishers,

112 Fourth Ave., New York.

### A TEMPORARY BINDER

for *Science* is now ready, and will be mailed postpaid on receipt of price.

Half Morocco - 75 cents.



This binder is strong, durable and elegant, has gilt side-title, and allows the opening of the pages perfectly flat. Any number can be taken out or replaced without disturbing the others, and the papers are not mutilated for subsequent permanent binding. Filed in this binder, *Science* is always convenient for reference.

N. D. C. HODGES,

47 Lafayette Place, New York.

JUST PUBLISHED.

### POPULAR MANUAL OF VISIBLE SPEECH AND VOCAL PHYSIOLOGY.

For use in Colleges and Normal Schools. Price 50 cents. Sent free by post by

N. D. C. HODGES, 47 Lafayette Place, New York

three times in a set of cups, and found that the lighter gave more than ten per cent more wind at five miles per hour, while there was no difference between the light and heavy cups in higher winds.

4. In the more recent trials in England, an anemometer was placed, with its axis horizontal, on the arm of a whirler, and the whirler rotated once and then suddenly stopped: the anemometer cups (supposedly from their momentum) continued to revolve. This experiment was certainly most remarkable. It is a little difficult to see what other result was to be expected. If any thing was to be learned, it could only be by stopping the cups at exactly the moment the whirler was stopped. This certainly does not elucidate in any way whatsoever the supposed inertia effect in an intermittent wind.

5. The crucial test in the English trials was made when the whirler was given an intermittent motion or one simulating a natural wind. The anemometer was placed on the end of the arm, and the velocity of the whirler was changed quite rapidly, ranging back and forth between forty and ten miles per hour,—a far greater fluctuation than can occur in the free air. Here, then, above all things else, we ought to get an inertia effect; but it was found that there was no difference in the record of the anemometer between the uniform and intermittent motion. The evidence seems to be overwhelming that the supposed momentum or inertia effect is purely imaginary.

We cannot sympathize with the feeling aroused in England by these experiments; namely, that the Robinson anemometer is untrustworthy. Undoubtedly the Kew instrument, with its 12-inch cups and 24-inch arms, is exceedingly clumsy, and should be discarded as soon as possible; but the experiments in this country have shown that with 4-inch cups and 6.72-inch arms the results are all that could be asked near ten miles per hour, and during about eighty per cent of our winds. It has also been demonstrated that an anemometer can be constructed which will give very good results over a large range of wind velocity. It is very certain that the Robinson anemometer is far ahead of any instrument that requires a vane. In the English trials a vane anemometer or air-meter gave much more

uniform results than any other instrument in the open air, but this was simply because the effect of the natural wind would be almost exactly counterbalanced on opposite sides of the whirl. In portions of the whirl where the wind would tend to accelerate the motion, the much more rapid whirler motion would tend to keep the vane normal to the arm; and, even if the vane had any influence, it would tend to turn the anemometer at an angle with the arm in such a way as to make it lose the proper speed which it would have in its normal position.

It seems probable that the anemometer problem has nearly reached its solution. What are now needed most of all are experiments with an anemometer, as light as practicable, and which will present a slightly greater proportional resistance to the higher winds than to the lighter, and possibly cause fewer whirls around the cups.

H. A. HAZEN.

Washington, April 11.

#### Supposed Aboriginal Fish-Weirs in Naaman's Creek, near Claymont, Del.

THE copy of my letter published by the Rev. Mr. Peet in Vol. XII. of the *American Antiquarian*, March, 1890, No. 2, is correct in some respects, and incorrect in others. So far, Mr. Peet has failed to prove that I ever used the word "pile-dwellings," or "river-dwellings." My denial is quite as good as his assertion in this respect, until the original letter be produced, and proven to be mine. I have already given a true version of this letter in a former communication to *Science*, and sufficient reasons for the use of the terms "pile-structures," "pile-ends" or "log-ends," and "stations." They are sufficiently clear explanations for any one to understand without danger of an erroneous impression. No repetition of this explanation is therefore necessary. I call Mr. Peet's particular attention to this assertion.

In the reproduction of my letter, published on p. 118, *American Antiquarian*, March, 1890, I desire to correct the following error: "The numerous suggestions that the pile-structures were fish-weirs is untenable," should read "the numerous suggestions that the pile-structures were fish-weirs is tenable;" and if my



**Some  
Children  
Growing  
Too Fast**

become listless, fretful, without energy, thin and weak. But you can fortify them and build them up, by the use of

**SCOTT'S  
EMULSION**

**OF PURE COD LIVER OIL AND  
HYPOPHOSPHITES  
Of Lime and Soda.**

They will take it readily, for it is almost as palatable as milk. And it should be remembered that AS A PREVENTIVE OR CURE OF COUGHS OR COLDS, IN BOTH THE OLD AND YOUNG, IT IS UNEQUALLED. Avoid substitutions offered.

Back numbers Atlantic, Century, Harper, and Scribner, 10 cents per copy, other magazines equally low. Send for a catalogue.

**A. S. CLARK,**

Bookseller,

34 Park Row, New York City.

**B**ACK NUMBERS and complete sets of leading Magazines. Rates low. AM. MAG. EXCHANGE, Schenectady, N.Y.

#### A New Method of Treating Disease.

##### HOSPITAL REMEDIES.

What are they? There is a new departure in the treatment of disease. It consists in the collection of the specifics used by noted specialists of Europe and America, and bringing them within the reach of all. For instance, the treatment pursued by special physicians who treat indigestion, stomach and liver troubles only, was obtained and prepared. The treatment of other physicians celebrated for curing catarrh was procured, and so on till these incomparable cures now include disease of the lungs, kidneys, female weakness, rheumatism and nervous debility.

This new method of "one remedy for one disease" must appeal to the common sense of all sufferers, many of whom have experienced the ill effects, and thoroughly realize the absurdity of the claims of Patent Medicines which are guaranteed to cure every ill out of a single bottle, and the use of which, as statistics prove, has ruined more stomachs than alcohol. A circular describing these new remedies is sent free on receipt of stamp to pay postage by Hospital Remedy Company, Toronto, Canada, sole proprietors.

#### ESTERBROOK'S STEEL PENS.

OF SUPERIOR AND STANDARD QUALITY.

Leading Nos.: 048, 14, 130, 135, 239, 333

For Sale by all Stationers.

THE ESTERBROOK STEEL PEN CO.,

Works: Camden, N. J. 26 John St., New York.

TRADE MARK.  
**Pure Air**  
INSURED BY  
USING "The Sherman King Vaporizer"  
SELF-ACTING,  
CONTINUOUS, INEXPENSIVE, RELIABLE.  
ALL IMPURE AND OFFENSIVE ODORS ABSOLUTELY REMOVED.

This apparatus consists of an iron vessel with a tightly fitting lid, held down with a screw, and inclosing a porous cup, which is saturated with a volatile disinfecting fluid. A small screw-valve is arranged on the side of the case. Opening both lid and valve, a current of antiseptic vapor issues, carrying with it the volatile disinfectants.

SELF-ACTING. Each Vaporizer sold charged for use. No care except to replenish once in two months at expense of 4 to 8 cents, according to size. Three sizes, \$3.50, \$5.00, \$8.00.

Illustrated Pamphlet free to all. Address SHERMAN "KING" VAPORIZER COMPANY, Chicopee Falls, Mass.; Boston, New York, Philadelphia, or Chicago.

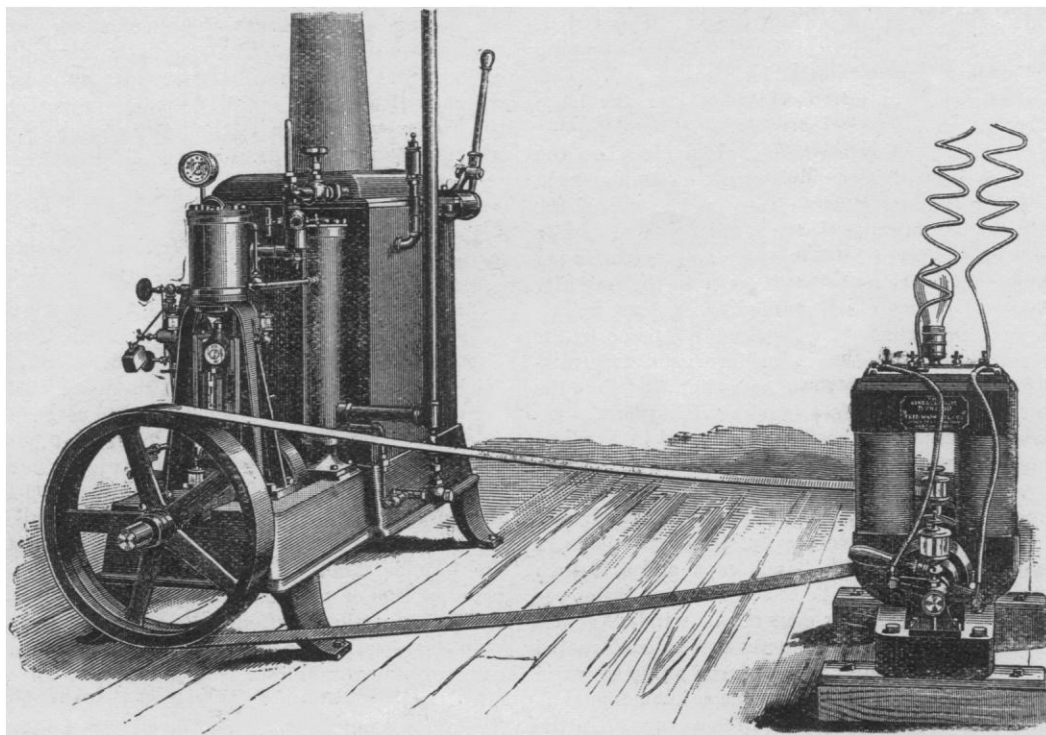
**BOOKS: How to get them.** If there is any book or pamphlet that you want, write to the Science Book Agency, 47 Lafayette Place, New York.

letter in Mr. Peet's possession gives any other sense, it has been tampered with by some one desiring to make mischief. The remarks that I make at the end of this letter (written several years ago, and now for the first time published by Mr. Peet) show that I was opposed to theorizing upon the subject, and used the term "pile-structures" throughout the letter. Reasons for use of these terms, let me repeat have been referred to, as above stated. In regard to the quotations from the Peabody Museum

## INDUSTRIAL NOTES.

## Automatic Oil-burning Steam-Engine for Electric Lighting.

THE compact electric-lighting plant shown in the illustration has been found to work satisfactorily in places where a comparatively small number of lights are required, and where the expense of operation must be reduced to a minimum. One such plant has been for some months furnishing light in a church at Fitchburg, Mass. Power is furnished by a Shipman automatic



A COMPACT ELECTRIC-LIGHTING PLANT.

reports, I have to say that its editor was perfectly free to express his opinions upon the subject, whether he accepted my fish-weir theory or not. So far, I have not yet made any definite report upon the subject, from lack of time to work the material up. There is no manuscript in the hands of the Peabody Museum, upon pile-dwellings or river-dwellings in North America, awaiting publication, as has been asserted. HILBORNE T. CRESSON.

Philadelphia, April 11.

oil-burning engine, which was illustrated and described in these columns about a year ago. The dynamo furnishes current for fifteen 32-candle-power incandescent lamps, six 25-candle-power lamps, and five 16-candle-power lamps. The fuel being oil, supplied automatically as required, and the water-supply, steam-pressure, and speed being automatically regulated, the plant requires scarcely any attention other than to start and stop it, and is said to give entire satisfaction.

PURIFICATION of air by ventilation has never been satisfactory, but rather a delusion and a snare, especially to teachers who have been defrauded by its pretensions and not benefited by its accomplishments. Mature people can point to no efficient, successful ventilation. Every system in the last twenty-five years has been tried or is being tried, but to no satisfactory purpose. The cry for purification in school-rooms and other public institutions throughout the country is more heart-rending than ever before. Ventilation is abortive. Disinfection alone can be relied upon as a means of purification. The Sherman "King" Vaporizer is the only known device that is warranted to absolutely accomplish this. They are used in hundreds of school auditoriums and other public institutions in Boston, Springfield, Holyoke, Worcester, Chicopee, Hartford, and other places, as well as in innumerable private dwellings and everywhere with the most gratifying results. They never fail to purify every place where they are located. This wonderful purifier is *continuous*, requiring but a moment's care once in from two to three months. The cost of supporting it is so trifling as not to need consideration. It is inexpensive, agreeable, compact, absolute and interesting. Names of prominent officials in any of the above places will be furnished, to facilitate direct inquiry, if desired. Testimony to all above facts—*absolutely convincing*—furnished by agent for New England at 45 Kilby St., Boston, SHERMAN "KING" VAPORIZER CO.

If you have \$100, \$1,000 or \$1,000,000 for which you are seeking for a profitable investment, write to JAMES W. GREENE, West Superior, Wis.

Inquiry costs nothing. Reference by permission to The Editor of SCIENCE.

## CATARRH.

## Catarrhal Deafness—Hay Fever.

A NEW HOME TREATMENT.

Sufferers are not generally aware that these diseases are contagious, or that they are due to the presence of living parasites in the lining membrane of the nose and eustachian tubes. Microscopic research, however, has proved this to be a fact, and the result of this discovery is that a simple remedy has been formulated whereby catarrh, catarrhal deafness and hay fever are permanently cured in from one to three simple applications made at home by the patient once in two weeks.

N.B.—This treatment is not a snuff or an ointment; both have been discarded by reputable physicians as injurious. A pamphlet explaining this new treatment is sent free on receipt of stamp to pay postage, by A. H. Dixon & Son, 337 and 339 West King Street, Toronto, Canada.—*Christian Advocate*.

Sufferers from Catarrhal troubles should carefully read the above.

**AGENTS WANTED** by an old reliable firm; large profits, quick sales, **SAMPLE FREE**. A rare opportunity. Geo. A. Scott, 842 Broadway, N. Y.

## Exchanges.

[Free of charge to all, if of satisfactory character. Address N. D. C. Hodges, 47 Lafayette Place, New York.]

Wanted—To furnish roots of *Dodecatheon Meadia*, *Sarracenia purpurea*, and other wild flowers, native of Southern Wisconsin, in quantities. D. E. Willard, Curator of Museum, Albion Academy, Albion, Wis.

A large number of plants from Maine, Connecticut, Indiana and Illinois for exchange. Southern and western exchanges preferred. Address, enclosing lists, L. N. Johnson, 223 Chicago Ave., Evanston, Ill.

For Exchange—Fourteen volumes Encyclopedia Britannica (Stoddard's ninth edition), bound in leather—part in original wrappers, all as new—can arrange to furnish volumes required to complete set, and six volumes "American Naturalist" in numbers. Want small screw-cutting foot lathe and testing galvanometer and rheostat. For particulars address A. B. Campbell, McKean Co., Bradford, Pa.

I have a number of duplicates of microscopic slides, mostly botanical, which I would like to exchange for others not now in my collection. Send list of what you have to exchange and get my list. S. R. Thompson, New Wilmington, Pa.

**THE GREAT AMERICAN TEA COMPANY**  
**CHANCE FOR ALL**  
To Enjoy a Cup of Perfect Tea. A TRIAL ORDER of  $\frac{3}{4}$  pounds of Fine Tea, either Oolong, Japan, Imperial, Gunpowder, Young Hyson, Mixed, English Breakfast or Sun Sun Chop, sent by mail on receipt of \$2.00. Be particular and state what kind of Tea you want. Greatest inducement ever offered to get orders for our celebrated Teas, Coffees and Baking Powder. For full particulars address THE GREAT AMERICAN TEA CO., P. O. Box 289, 31 and 33 Vesey St., New York.